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# United States Patent [19]

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- [54] **MULTIPOLE INLET SYSTEM FOR ION TRAPS**
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- [58] Field of Search ..... **250/290, 291, 292, 281, 250/282, 293**

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### [57] ABSTRACT

A two dimensional RF multipole field formed by a set of parallel rods, e.g. quadrupole rods, serves as an inlet for an ion trap. The field both accepts and stores ions for the trap, and rejects unwanted ions, while the trap is performing an analysis. This greatly increases the duty cycle of the overall system, increasing the system sensitivity.

- [56] **References Cited**
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**12 Claims, 2 Drawing Sheets**

